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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/005,820	12/04/2001	William C. Schneider	MSC-23178-1	9636

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EXAMINER

PECHHOLD, ALEXANDRA K

ART UNIT	PAPER NUMBER
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3671

DATE MAILED: 02/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/005,820

Applicant(s)

~~SCHNEIDER ET AL.~~

Examiner

Alexandra K Pechhold

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 December 2003.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-3, 5-10, 12-14, 16-22, 24-37, 44, and 45 is/are rejected.
7) ☒ Claim(s) 38-43 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1-3, 5-10, 12-14, 16-22, and 24-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uotila (US 5,310,277) in view of Terio (US 4,780,020).**

Regarding claims 1, 5, 6, 10, 22, and 24, Uotila discloses a method and device for impeding motion of a land vehicle comprising:

- a net (or means for receiving and retaining the moving body), seen as net (1) in Figs. 1, 4, and 5
- anchors (or means for anchoring the receiving and retaining means), seen as anchors (3) in Figs. 1 and 4, and
- a flexible strip arranged to secure the net to the anchors (or means for decelerating the moving body in a controlled manner), seen as brakes (4, 5) in Figs. 1 and 4-7, which are described by Uotila as discardable fabric brakes formed of one or several ribbons which have been woven or stitched together over a certain length, so that ribbons are forced to be torn apart when pulled (Col 2, lines 40-65).

Uotila fails to disclose a first sacrificial panel (as recited in applicant's claims 1, 10, and 22), which includes a smooth surface on one side (as recited in applicant's claim 5), and a second sacrificial panel (as recited in applicant's claim 6), the first and second panels sandwiching the net therebetween (as recited in applicant's claim 22). Terio teaches a vehicle barrier comprised of I-beam posts with cable therebetween to stop a high speed vehicle (see abstract). The barrier employs panels (40), which would not only make the gate more pleasing to look at but would hide the functioning components of the barrier from view to protect the from weather and scrutiny by potential terrorist (Col 5, lines 1-5). Two such panels would be employed between each pair of I-beams, one in front of the cables, one in back, between the cables and webs (2, 3), respectively (Col 5, lines 5-8). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the barrier of Uotila to include first and second sacrificial panels sandwiching the net therebetween as taught by Terio and include a smooth surface on one side of the first sacrificial panel, since Terio states in column 5, lines 1-8 that the panels would not only make the gate more pleasing to look at but would hide the functioning components of the barrier from view to protect the from weather and scrutiny by potential terrorist, and two such panels would be employed, one in front of the cables, one in back; furthermore, a smooth surface is merely an aesthetic feature which does not affect the effect or purpose of the panel.

Regarding claim 2, Uotila discloses that the brake members are formed of two ribs that have been woven or stitched together over a certain length, and they usually have two ends, on which draw members have been formed. Pulling on the draw

members will cause the ribbons to be forced to be torn apart (Col 2, lines 40-51).

Therefore, since the stitching breaks first, tearing apart the ribbons, the tensile strength of the stitching must be less than the tensile strength of the ribbons.

Regarding claim 3, Uotila discloses that the ribbons forming the fabric brakes have been woven or stitched together over a certain length (Col 2, lines 40-51), therefore the stitched and/or woven portions serving as the fasteners.

Regarding claim 7, Uotila fails to disclose a plurality of barriers placed end-to-end alongside a roadway. But Uotila notes that "[I]t is obvious that any number of nets, such as may be considered necessary, can be placed one after the other" (Col 3, lines 35-37). The nets are designed for greatest possible cover for use in stopping any passenger car that is in motion on the road (Col 4, lines 22-25). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the staggered nets in Fig. 9 of Uotila so there are a plurality of barriers placed end-to-end, since Uotila states in column 3, lines 35-37 that it is obvious that any number of nets, such as may be considered necessary, can be placed one after the other, and in column 4, lines 22-25 that the nets are designed for greatest possible cover for use in stopping any passenger car that is in motion on the road.

Regarding claims 8, 9, 12, 13, 27, and 28, Uotila discloses both a non-constant level of deceleration as well as a substantially constant level of deceleration in the action of the braking members (4, 5). Uotila notes that the first brake members are open, meaning that in conclusion of their operation the first brake members altogether cease to operate, and release their grip. The second brake members become locked in

conclusion of their retarding effect, whereby the braking force increases to great height in the end (Col 2, lines 52-61). Therefore, it appears the first breaking members provide a substantially constant level of deceleration, and the second breaking members provide a non-constant level of deceleration since the braking force increases to great height in the end.

Regarding claims 14, 16, 17, and 21, Uotila discloses a device for impeding motion of a land vehicle comprising:

- a first barrier, seen as net (1¹) in Fig. 9
- a second barrier, seen as net (1²) in Fig. 9, positioned alongside the first net, the first row being staggered from the second row (Col 3, lines 21-25)
- a plurality of anchors, seen as anchors (3) in Figs. 1 and 4
- each barrier comprising a net, seen as nets (1¹) and (1²) in Fig. 9, and one or more flexible strips arranged to secure the net to the anchors, seen as brakes (4, 5) in Figs. 1 and 4-7, which are described by Uotila as discardable fabric brakes formed of one or several ribbons which have been woven or stitched together over a certain length, so that ribbons are forced to be torn apart when pulled (Col 2, lines 40-65).

Uotila fails to disclose a first sacrificial panel, which includes a smooth surface on one side (as recited in applicant's claim 16) and a second sacrificial panel, the first and second panels sandwiching the net therebetween (as recited in applicant's claim 17). Terio teaches a vehicle barrier comprised of I-beam posts with cable therebetween to stop a high speed vehicle (see abstract). The barrier employs panels (40), which would

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not only make the gate more pleasing to look at but would hide the functioning components of the barrier from view to protect the from weather and scrutiny by potential terrorist (Col 5, lines 1-5). Two such panels would be employed between each pair of I-beams, one in front of the cables, on in back, between the cables and webs (2, 3), respectively (Col 5, lines 5-8). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the barrier of Uotila to include first and second sacrificial panels sandwiching the net therebetween as taught by Terio, since Terio states in column 5, lines 1-8 that the panels would not only make the gate more pleasing to look at but would hide the functioning components of the barrier from view to protect the from weather and scrutiny by potential terrorist, and two such panels would be employed, one in front of the cables, on in back.

Uotila also fails to disclose a first row of barriers and second row of barriers positioned end-to-end (as recited in applicant's claim 14), with each barrier having a male portion and corresponding female portion of a mated joint (as recited in applicant's claim 21). Yet Uotila notes that it is obvious that any number of nets, such as may be considered necessary, can be placed one after the other (Col 3, lines 35-37). The nets are designed for greatest possible cover for use in stopping any passenger car that is in motion on the road (Col 4, lines 22-25). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the staggered nets in Fig. 9 of Uotila so there is a row of first and second barriers positioned end-to-end, and each barrier having corresponding male and female portions of a mated joint, since Uotila states in column 3, lines 35-37 that it is obvious that any number of nets, such as

may be considered necessary, can be placed one after the other, and in column 4, lines 22-25 that the nets are designed for greatest possible cover for use in stopping any passenger car that is in motion on the road. So therefore if you have multiple side-by-side cars approaching the net, a row of barriers would be the logical solution in order to satisfy Uotila's desire for the greatest possible cover for use in stopping any passenger car that is in motion on the road, and clearly the barriers would have to be joined by some sort of mated joint.

Regarding claims 18 and 19, Uotila discloses both a non-constant level of deceleration as well as a substantially constant level of deceleration in the action of the braking members (4, 5). Uotila notes that the first brake members are open, meaning that in conclusion of their operation the first brake members altogether cease to operate, and release their grip. The second brake members become locked in conclusion of their retarding effect, whereby the braking force increases to great height in the end (Col 2, lines 52-61). Therefore, it appears the first breaking members provide a substantially constant level of deceleration, and the second breaking members provide a non-constant level of deceleration since the braking force increases to great height in the end.

Regarding claim 20, Uotila illustrates a plurality of support members mounted alongside the barriers, seen as posts (6) in Figs. 1 and 4.

Regarding claims 25 and 26, Uotila fails to disclose anchoring a first row of nets end-to-end alongside a roadway and a second row of nets end-to-end alongside the first row (claim 25), wherein the nets in the first row are staggered relative to the nets in the

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second row (claim 26). Uotila does state that it is obvious that any number of nets, such as may be considered necessary, can be placed one after the other (Col 3, lines 35-37), the nets designed for greatest possible cover for use in stopping any passenger car that is in motion on the road (Col 4, lines 22-25). Uotila discloses the benefits of a staggered configuration, stating that offsetting nets relative to each other ensures advantageous seizing of the vehicle (Col 3, lines 21-36). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the staggered nets in Fig. 9 of Uotila to include anchoring a first row of nets end-to-end alongside a roadway and a second row of nets end-to-end alongside the first row, wherein the nets in the first row are staggered relative to the nets in the second row, since Uotila states in column 3, lines 22-37 that it is obvious that any number of nets, such as may be considered necessary, can be placed one after the other, offset relative to each other to ensure advantageous seizing of the vehicle, and Uotila states in column 4, lines 22-25 that the nets are designed for greatest possible cover for use in stopping any passenger car that is in motion on the road.

Regarding claim 29, 30, 31, and 32, the combination of Uotila and Terio fails to disclose panels made of a thin layer of epoxy, concrete, or plywood, or combinations thereof. Terio fails to specify the material of panels (40). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Uotila having the panels of Terio so that the panels are made of a thin layer of epoxy, concrete, or plywood, or combinations thereof, since such materials are readily accessible and economical, and commonly used materials for panels.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. **Claims 33-37, 44, and 45 are rejected under 35 U.S.C. 102(b) as being anticipated by Uotila (US 5,310,277).**

Regarding claims 33, 36, and 44, Uotila discloses a barrier comprising:

- a receiving means (claim 33) or means for receiving and retaining the moving body (claims 36 and 44), seen as net (1) in Figs. 1, 4, and 5
- anchoring means (claim 33) or means for anchoring the receiving and retaining means (claim 36), seen as anchors (3) in Figs. 1 and 4,
- and means for decelerating the moving body in a controlled manner comprising at least one flexible, energy absorbing strap connected intermediate the receiving means and the anchoring means seen as brakes (4, 5) in Figs. 1 and 4-7, which are described by Uotila as discardable fabric brakes formed of one or several ribbons which have been woven or stitched together over a certain length, so that ribbons are forced to be torn apart when pulled (Col 2, lines 40-65).

Inherently, the deceleration will be controlled to limit the deceleration thereof to below a predefined maximum deceleration level, since the moving body encounters the

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effects of the receiving means, anchoring means, and means for decelerating the moving body. Also, the tensile strength of the stitches must be less than that of the strap, since Uotila states that the ribbons which are stitched together over a certain length are forced to be torn apart (Col 4, lines 40-51).

Regarding claims 34 and 35, inherently the stitches in the brake members of Uotila will be ripped apart sequentially (Col 2, lines 40-65) due to the nature of the tearing action. And likewise, the stitches extending longitudinally along adjacent lengths of strap, since Uotila states that two ribbons have been woven or stitched together over a certain length (Col 4, lines 43-45).

Regarding claim 37, inherently the load capacity of the brake members of Uotila is the sum of the energy absorbing stroke of each stitch (Col 4, lines 43-45).

Regarding claim 45, Uotila discloses that the brake member may for instance be composed in that two ribbons have been woven or stitched together over a certain length (Col 4, lines 42-45). Pulling on the draw members will produce in the brake member a uniform braking force opposing the pull so that the ribbons are forced to be torn apart (Col 4, lines 46-49).

Allowable Subject Matter

5. Claims 38-43 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

6. Applicant's Appeal Brief filed 12/30/03 has been considered. In the Appeal Brief, applicant submitted an Appendix D entitled "Request for Clarification of Office Action mailed April 18, 2003", wherein applicant correctly pointed out that the Office action did not include a statement of the statutory basis for rejecting claims 29-37, although these claims were individually addressed later in the Office Action in subparagraphs. The Interview Summary mailed 5/27/03 attempted to clarify this, since the Examiner did indeed not provide the proper statutory basis for all of the claims, rendering the Office Action unclear and confusing.

In response, the Examiner is hereby withdrawing the finality of the 4/18/03 Office Action in order to rectify the improper setting forth of statutory bases of the claim rejections. The Examiner regrets the confusion which required the applicant to make assumptions regarding the Examiner's claim rejections in writing the Appeal Brief. In order to establish a clear and proper basis for the claim rejections, the Examiner is hereby issuing another Office Action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexandra Pechhold whose telephone number is (703) 305-0870. The examiner can normally be reached on Mon-Thurs. from 8:00am to 5:30pm and alternating Fridays from 8:00am to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will, can be reached on (703)308-3870. The fax phone number for this Group is (703) 305-3597.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-1113.



Thomas B. Will
Supervisory Patent Examiner
Group 3600

AKP
2/24/04